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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/628,356 | 07/29/2003 | Pierre Lespade | 240822US0 | 4492 |
| 22850 | 7590 | 02/23/2007 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | FLETCHER III, WILLIAM P | |
| | | ART UNIT | | PAPER NUMBER |
| | | | | 1762 |

| SHORTENED STATUTORY PERIOD OF RESPONSE | NOTIFICATION DATE | DELIVERY MODE |
|--|-------------------|---------------|
| 3 MONTHS | 02/23/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/23/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | |
|------------------------------|-------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/628,356 | LESPADE ET AL. |
| | Examiner | Art Unit |
| | William P. Fletcher III | 1762 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 November 2006.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-7, 10 and 11 is/are rejected.
 7) Claim(s) 8 and 9 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment and remarks filed 17 November 2006 are noted.
2. Claims 1-15 remain pending.

Election/Restrictions

3. Claims 12-15 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11 April 2006.

Response to Arguments

4. Applicant's arguments, see the remarks, filed 17 November 2006, with respect to the objection to the specification and claims, as well as the rejections under 35 USC 112, 1st and 2nd Paragraphs, set-forth in the prior Office action, have been fully considered and are persuasive. Since Applicant's amendment has overcome these objections and rejections, they are withdrawn.

5. Applicant's arguments filed 17 November 2006, with respect to the prior art rejection set-forth in the prior Office action, have been fully considered but they are not persuasive:

A. Applicant's arguments, found at 9:1-14 of the remarks, are not persuasive because the claims, as written, in no way exclude the presence of B₂O₃. Rather, the use of the transitional phrase "comprising" specifically does not exclude additional, un-recited elements or method steps. See MPEP 2111.03.

B. Applicant's arguments, found at 9:15-23 of the remarks, are not persuasive for the same reason. The claims, as written, in no way exclude the carbon taught by Parkinson. Rather, the use of the transitional phrase "comprising" specifically does not exclude additional, un-recited elements or method steps. See MPEP 2111.03.

C. Finally, Applicant's description of the invention, found at 8:17-23 and 9:24-10:29 of the remarks, have been taken into consideration by the Examiner, but do not weigh against the *prima facie* case or record.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. **Claims 1-7, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,795,677 A) in view of Parkinson et al. (US 4,477,493 A).**

A. This combination of references is applied herein again for the same reasons set-forth under this heading in the prior Office action.

B. With respect to claims 1-3 and 10, this combination continues to render these claims obvious for the reasons detailed in paragraph 5 above.

C. With respect to claim 4, as noted in the prior Office action, Gray teaches phenolic resin.

D. With respect to claim 5, neither of these references teach the claimed average particle diameter. Nevertheless, it is the Examiner's position that particle

diameter is result-effective variable effecting the time required for melting and subsequent carbonization of the particles. Consequently, it would have been obvious to one of ordinary skill in the art to optimize the average particle diameter by routine experimentation, absent evidence of criticality. See MPEP 2144.05.

E. With respect to claim 6, Parkinson teaches about 5% (w/w) carboxymethylcellulose in Example 1.

F. With respect to claims 7 and 11, Gray teaches the limitations of these claims at 3:54-63.

Allowable Subject Matter

8. Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art neither teaches nor suggests the claimed process in which the metallic compound in powder form is hafnium boride and the mass ratio of HfB to carbon derived from carbonization is from 18:1 to 1:1, as claimed.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shaffer (US 3,189,477 A) teaches the coating of a substrate with a refractory coating derived from HfB, but fails to teach or suggest the recited HfB to carbon ratio recited in claim 8.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571)

272-1419. The examiner can normally be reached on Monday through Friday, 0900h-1700h.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William Phillip Fletcher III
Primary Examiner
Art Unit 1762

February 18, 2007